

## DRAWINGS ATTACHED

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(21) Application No. 13052/71 (22) Filed 4 May 1971

(44) Complete Specification published 4 July 1973

(51) International Classification A63B 69/36 69/38

(52) Index at acceptance  
A6D 13C

(19)



## (54) SWING PRACTISING DEVICE

(71) I, JESS OFFENHEIMER, a Citizen of the United States of America, of 549 Moreno Street, Los Angeles, California, United States of America, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention pertains to the fields of: amusement devices, as related to games of golf, baseball, bowling, tennis, and the like, and particularly body guides and restraints therefor; simulated games; and exercising devices.

A variety of popular games which superficially appear completely unrelated have, in fact, certain aspects of motion that are quite analogous to each other or in some cases are actually identical. This is particularly true with regard to games utilizing an arm swing such as golf, baseball, bowling, tennis, and the like. In each of these games, a uniformly executed arm swing is often the key to successful play. In tennis, such a swing is critical to the delivery of an effective serve; in bowling, such a swing is necessary for fine control of the ball; in baseball, a uniformly executed swing and smooth, efficient body control are required for both hitting and pitching; in golf, such a swing and body control are critical to effective play.

A variety of methods have been devised for each of the foregoing games to aid a player to obtain or develop a proper swing. In many of such methods, efforts are made to control the path of the player's arms or hands, or the club, bat, racket or ball by means of some fixed or rotating device in which movements of the player are guided or forced with respect to rigging of some form located apart from the player. These devices have generally assumed that a uniform swinging motion could be obtained by forcing the player to swing his arms, hands, or instrument of play in a smooth arc uniplanar with respect to the ground. However, swings utilized in each of the foregoing games, because of the movement of the player's body, are made up of constantly

varying compound planes (with respect to an exterior reference); accordingly, the foregoing devices do not generally succeed in significantly improving the player's swing.

The present invention represents an important advance in the art that it provides means for controlling a player's motions to impart a swing made up of constantly varying compound planes and which is an accurate representation of an effective and desirably swing. Various controlling devices for this purpose are provided which devices are affixed to the player so that as his body moves through the varying planes, the suspension centre of the swing moves with him. Various ancillary devices are provided as well as devices allowing the exercise of muscles to enhance the player's ability to accomplish the swing. The invention will be particularly described with respect to a golf swing, but the general concepts and many of the mechanical embodiments are applicable to other athletic games, such as baseball, bowling, tennis and the like, which require a uniformly smooth arm swing.

According to the present invention, there is therefore provided a practice device for use by a person in swinging an instrument, comprising an instrument to be gripped by a person for swinging thereof, an elongated shaft and means for securing one end of said shaft to a person to extend said shaft forwardly of the person; a guy; means for pivotally securing said guy to a forwardly extending part of said shaft and to said instrument at a location spaced a substantial distance forwardly from the grip thereon whereby to determine the arc of swing of said instrument at a predetermined distance from said shaft.

The invention will be further described, purely by way of example, with reference to the accompanying drawings, in which:

Figures 1A—1F are perspective views in use sequence of the swing device of this invention.

Referring to Figures 1A—F, an embodiment of this invention is depicted in which a shaft 16 is secured by a harness 18 to

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the player's chest so as to extend forwardly thereof at an angle which, when the player is assuming a proper address stance, causes the shaft 16 to be horizontal or parallel to the ground. Adjustment means 20 is provided to adjust the angle so that, in order to maintain the rod horizontal, the player would have to be bent over more for short irons and less for woods and long irons. The shaft 16 has an offset and return 22 therein to enable the player's left arm to move up close to his chin at the top of a backswing. A guy, which in this case is a rod 24, but which may be a flexible cord, rope, etc., is flexibly attached at 26 to a sleeve 28, which sleeve 28 is slidable along the shaft 16 and securable at any point thereon to lie directly over the head 30 of the particular club being used or can extend from a point nearer the player. The guy or vertical rod 24 is flexibly attached at 32 to the club head 30 or can be attached to the hosel. The flexible couplings 26 and 32 can be a ball socket joint or merely a flexible piece of leather to allow great freedom of movement in any direction. Thus, the club head can move in any axis in relation to the horizontal shaft 16, but it must always remain the same distance from it, i.e., the length of the vertical rod 24.

In operation, as the player begins his backswing, he starts with his arms and hands, which can move the club head a limited amount along an arc which moves inside and upward. This move is soon limited by his shoulders. To continue the move, the player must begin to move his shoulders, which starts to move the center of the swing (the point on horizontal shaft 16 directly above the club head 30 at address). From this point on, the player can keep the club head moving by rotating his shoulders on as vertical a plane as possible (tilting). However, this move is soon limited and to continue, the player must rotate his body on a horizontal plane around a vertical axis which passes through a point midway between his shoulders at the back of his neck. During this time, the club head, 30 must remain the same distance from the horizontal shaft 16 as determined by the length of the vertical rod 24. Various movements of the player's feet, legs, hips, cocking of wrists, etc., all then become merely adjusting moves to allow the club head to get back to where he wants it while he is maintaining the position of his head in space. At the top of the backswing, the shaft 16 which was horizontal at address is pointing almost directly away from the target and in an upward direction. In other words, all elements of the swing are moving in relationship through a changing series of planes. The total effect between the club head 30, horizontal shaft 16 and vertical rod 24 is the same as though every-

thing in a circle on a vertically directed plane around the horizontal shaft.

On the downswing, the reverse action takes place. The player's tilted position holds the horizontal shaft 16 back to the right so that it doesn't reach a point directly over the ball before the club head reaches the ball. It can readily be seen that if the first move from the top of the backswing was to turn the shoulders to the left, the horizontal shaft would almost immediately be over the ball while the club head would still be over the right shoulder. There would be no time to get the club head down to the ball or even near it, and any effort from this point on would have to move the club head to the outside and down, thus sending the ball on a slicing path. The vertical rod 24 causes the club head to make a full arc around the horizontal shaft 16 in order to get back to the ball. Accordingly, in order to bring the club head 30 to the ball before the horizontal shaft 16 arrives thereover, the horizontal shaft 16 must be maintained as far to the right as possible, while the club head is carrying the vertical rod 24 down and around it. The effect achieved is properly known as "waiting for the club head". In order to keep the horizontal shaft 16 to the right, the hips must turn to the left. Eventually, of course, the body reaches a point past which it can no longer turn and tilt, and the shoulders must then rotate to the left to stand the player upright. The more supple a person is, the more he can delay the time when the horizontal shaft 16 is over the ball; the longer the horizontal shaft 16 is to the right, the more time to swing the club head 30 in a smashing arc. Generally the most powerful swing is one in which the club head 30 reaches the ball furthest ahead of the shaft 16.

As noted, the vertical rod 24 is attached via a flexible coupling 26 to a sleeve 28 which can be positioned at various locations along the horizontal shaft 16. For putting and chipping, means can be provided to allow the vertical rod 24 to swing only in a path 90 degrees to the horizontal of the shaft 16, assuring that the club head will make a straight back and straight forward path if the player keeps the horizontal shaft 16 stationary. Any movement of the horizontal shaft 16 can be immediately seen, as it moves against the view of the ground. Thus, a member with a very shallow arc, may be placed at 90 degrees to the horizontal shaft 16. The top of the vertical rod 24 can then be positioned to move along this member, giving the player an arc which keeps the club head 30 much closer to the ground than possible by just swinging the club head around the horizontal shaft 16.

As previously noted, the foregoing embodiment has been described with respect to

to the game of golf. However, many of the principles are equally applicable to other sports and games which require the smooth motion of an extended arm. For example, in baseball, the player stands much more upright, but the same principles apply. The device depicted in the drawings can be utilized with only minor modification to accommodate a more horizontal swing. With respect to the device depicted in Figure 1, the shaft 16 is situated quite upright, going up and out from the player's chest. However, just as in golf, the vertical rod 24 is attached to the chest shaft 16 at a point directly above the far end of the bat with the batter's arms fully extended. The player controls the height of the swing by bending his body more or less and the vertical rod 24 assures that he must extend both arms fully to get the bat through.

In bowling, the shaft 16 would be disposed straight out from the bowler's right shoulder and the vertical rod 24 would attach to the shaft 16 at a point close to the shoulder and directly over the right hand to a point at the knuckle on the back of the right-hand glove.

#### WHAT I CLAIM IS:—

1. A practice device for use by a person in swinging an instrument, comprising: an instrument to be gripped by a person for swinging thereof; an elongated shaft and means for securing one end of said shaft to a person to extend said shaft forwardly of the person; a guy means for pivotally se-

curing said guy to a forwardly extending part of said shaft and to said instrument at a location spaced a substantial distance forwardly from the grip thereon whereby to determine the arc of swing of said instrument at a predetermined distance from said shaft.

2. The device as claimed in Claim 1, wherein the said shaft is securable to a user's chest at an angle which is adjustable.

3. The device as claimed in Claim 1, wherein said shaft has an offset and return therein, adjacent said one end, of such extent as to allow a user's arm to pass thereunder during a normal swing.

4. The device as claimed in Claim 1, wherein said guy is a rigid rod extending from said shaft to said instrument.

5. The device as claimed in Claim 1, wherein said instrument is a golf club and said guy is pivotally secured to the club-head or hosel, thereof.

6. The device as claimed in Claim 5, wherein said shaft has sufficient length to extend to a point vertically over said club-head at address.

7. The device as claimed in Claim 1, wherein said guy is a flexible member extending from said shaft to said instrument.

8. A practice device for use by a person in swinging an instrument constructed and arranged to operate substantially as hereinbefore described with reference to and as illustrated in the accompanying drawings.

POTTS, KERR & CO.

Printed for Her Majesty's Stationery Office by Burgess & Son (Abingdon), Ltd.—1973.  
Published at The Patent Office, 25 Southampton Buildings, London, WC2A 1AY,  
from which copies may be obtained.

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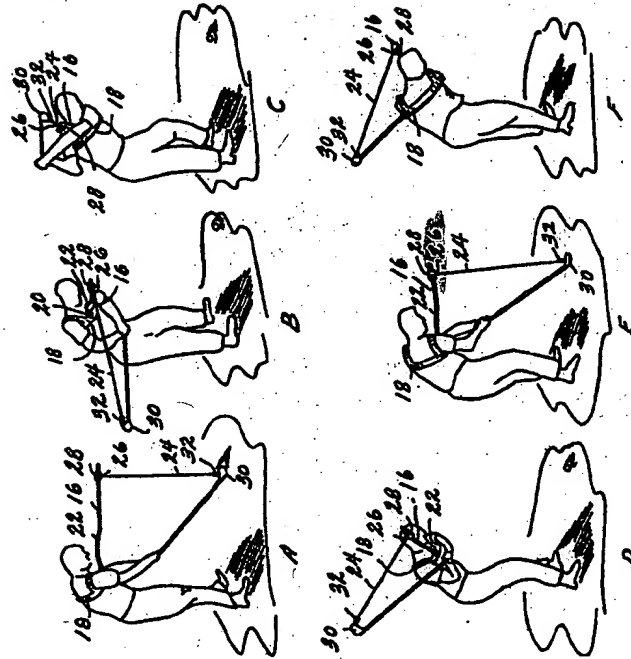


Fig. 1

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